## PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Previously Presented) A method for estimating an original pilot signal, the method comprising:

receiving a CDMA signal;

obtaining a pilot signal from the CDMA signal; and

estimating an original pilot signal using a pilot estimator having first and second filters and a switching component, each of the first and second filters generating from the pilot signal a filter estimate and prediction error, and wherein the switching component applies a combining coefficient to each of the filter estimates based on the filter estimate's prediction error, and combines the filter estimates to produce a pilot estimate.

2. (Previously Presented) The method as in claim 1, wherein the first and second filters each includes a Kalman filter.

3. (original) The method as in claim 2, wherein the Kalman filters are implementing Infinite Impulse Response filters.

Claims 4-5 (canceled)

6. (Previously Presented) The method as in claim 3 , wherein the switching component uses a first error variance to compute the coefficient to apply to the first filter estimate and a second error variance to compute the combining coefficient to apply to the second filter estimate.

7. (original) The method as in claim 6, wherein the pilot estimate is obtained according to the following:

$$\hat{s}^{+}_{k,MSE} = \alpha_1 \hat{s}^{+}_{k}(\theta_1) + \alpha_2 \hat{s}^{+}_{k}(\theta_2)$$

where

$\hat{s}^{+}_{k,MSE}$ is the pilot estimate,

$\alpha_1$, $\alpha_2$ are combining coefficients,

$\hat{s}^{+}_{k}(\theta_1)$ is the first filtered estimate, and

$\hat{s}^{+}_{k}(\theta_2)$ is the second filtered estimate.

8. (original) The method as in claim 7, wherein each combining coefficient is obtained through use of a posteriori probabilities function obtained according to the following:

$$f[k] = \ln \frac{\Omega_1}{\Omega_2} - \frac{\hat{\Omega}_2[k]}{\Omega_2} + \frac{\hat{\Omega}_1[k]}{\Omega_1}$$

where

$\hat{\Omega}_1$ is the first error variance, and

$\hat{\Omega}_2$ is the second error variance.

9. (Previously Presented) The method as in claim 1, wherein the switching component uses a soft-switching method.

10. (Previously Presented) The method as in claim 1, wherein the switching component uses a hard-switching method.

11. (original) The method as in claim 1, wherein the method is implemented in a mobile station.

12. (Previously Presented) A mobile station, comprising:

a receiver for receiving a CDMA signal;

a front-end processing and despreading component for obtaining a pilot signal from the CDMA signal; and

a pilot estimation component having first and second filters and a switching component, each of the first and second filters generating from the pilot signal a filter estimate and prediction error, and wherein the switching component applies a combining coefficient to each of the filter estimates based on the filter estimate's prediction error, and combines the filter estimates to produce a pilot estimate.

13. (Previously Presented) The mobile station as in claim 12, wherein the first and second filters each includes a Kalman filter .

14. (original) The mobile station as in claim 13, wherein the Kalman filters are implementing Infinite Impulse Response filters.

Claims 15 – 16 (canceled)

17. (Previously Presented) The mobile station as in claim 14, wherein the switching component uses a first error variance to compute the combining coefficient to apply to the first filter estimate and a second error variance to compute the combining coefficient to apply to the second filter estimate.

18. (original) The mobile station as in claim 17, wherein the pilot estimate is obtained according to the following:

$$\hat{s}^{+}_{k,MSE} = \alpha_1 \hat{s}^{+}_{k}(\theta_1) + \alpha_2 \hat{s}^{+}_{k}(\theta_2)$$

where

$\hat{s}^{+}_{k,MSE}$ is the pilot estimate,

$\alpha_1$, $\alpha_2$ are combining coefficients,

$\hat{s}_k^+(\theta_1)$ is the first filtered estimate, and

$\hat{s}_k^+(\theta_2)$ is the second filtered estimate.

19. (original) The mobile station as in claim 18, wherein each combining coefficient is obtained through use of a posteriori probabilities function obtained according to the following:

$$f[k] = \ln\frac{\Omega_1}{\Omega_2} - \frac{\hat{\Omega}_2[k]}{\Omega_2} + \frac{\hat{\Omega}_1[k]}{\Omega_1}$$

where

$\hat{\Omega}_1$ is the first error variance, and

$\hat{\Omega}_2$ is the second error variance.

20. (Previously Presented) The mobile station as in claim 12, wherein the switching component uses a soft-switching method.

21. (Previously Presented) The mobile station as in claim 12, wherein the switching component uses a hard-switching method.

22. (Previously Presented) A mobile station, comprising:
means for receiving a CDMA signal;

means for obtaining a pilot signal from the CDMA signal; and
means for estimating an original pilot signal using a pilot estimator having first and second filters and a switching component, each of the first and second filters generating from the pilot signal a filter estimate and prediction error, and wherein the switching component applies a combining coefficient to each of the filter estimates based on the filter estimates prediction error, and combines the filter estimates to produce a pilot estimate.